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Education for Sustainable Development – Training the Young Generation for the Future

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Abstract

ESD (Education for Sustainable Development) can generate changes in the mentality of people, enabling them to create a safer, healthier and wealthier world, thus improving the quality of life. ESD represents a holistic interdisciplinary learning strategy, based on values, critical thinking, cross-methodological approaches, decision making policies that intends to assist young people in dealing with an increasingly changing and challenging world. Hence, ESD challenges us to adopt new attitudes and practices that will help us tackle the future. Educational process should be such that even the weakest students be educated in a manner that their actions, present or future, pose no danger to society or even to themselves.

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1. The status of the problem

„We can't solve problems by using the same kind of thinking we used when we created them” (Albert Einstein).

People's attitude towards the environment, throughout our existence, has not changed significantly. Soils have been degraded, forests have been exploited irrationally thus destroying some species of both animals and plants. The difference between us and our ancestors is our increased ability to either destroy or care for the environment. World population growth has resulted in the degradation of air and water quality. This has led to increasing concerns about the environmental damage.

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Since the nineteenth century, scientists have warned mankind about the devastating effects of excessive urbanizations and industrialization and have tried to educate people in natural and environmental sciences.

The European Union has established that sustainable development is the basic principle of all European policies, in fact the competitiveness issue has come to dominate the political agenda. Sustainable development (SD) is a broad concept, many different issues are addressed by the Sustainable Development Strategy of the European Union, thus removing attention from the true direction of non-sustainable development (lack of sustainability). To face this problem, to turn the abstract concept of "sustainable development" into a more tangible one and to translate it into more specific educational measures, the UN General Assembly decided on the 20th of December 2002 on celebrating a period of 10 years, from January 1st, 2005, as the UN Decade for Education for Sustainable Development (General Assembly of United Nations, 2002).

Our study on sustainability through education can be understood as a way of promoting this world decade.

Sustainability is a highly demanding concept, claiming changes on all levels: political, social economic, environmental, practical, and educational and decision-making.

Initially coined as a type of development meant to ensure present needs, sustainable development has fascinated the world by giving hope to future human evolution. Gradually, though, the term has been given different interpretations such as „sustainable growth”, „sustainable use”, „sustainable consumption” or „sustainable partnership”. The concept as such can be defined as follows:

- *economically*: efficiency, growth and stability;
- *socially*: standard of living, equity, social dialogue and delegation of responsibilities, heritage protection;
- *environmentally*: protection and conservation of natural resources, biodiversity, pollution avoidance;
- *educationally*: sustainable behavior, quality, cooperation, partnerships.

The link between sustainable development and education proves highly complex. Only by means of education can all countries achieve their sustainable development objectives. The focus lies on productivity growth in agriculture, health improvement, demographic decrease and standard of living improvement.

In the light of the United Nations Decade, there have been developed four main ideas related to education for sustainable development: access improvement to basic quality education, restructuring of the present educational programs, development of public understanding and awareness, training programs assurance.

In 2010, in Romania, according to some research conducted by the Research Institute for Quality of Life, „population was divided as follows: 31% considered the Romanian education system as good and very good, 32% as bad and very bad. As compared to 2006, there was a growth in negative opinion as a result of continuous instability of the system throughout the years, aggravated by the recent economic downturn. 2010 marks the transition to the negative profile of the Romanian educational system, a rude awakening to disappointment” (Mărginean, 2010, p. 6).

The result of the research conducted by the Research Institute for Quality of Life imposed urgent measures on the education of the young generation. Hence, the new Law of education is expected to bring forth much desired changes in our educational system. All in all, educational service providers must develop educational programs for sustainable education that balance future knowledge with traditional lifestyle.

2. The aim of the study

The aim of the study is to analyze the way the teaching staff have implemented and used the concept of education for sustainable development, based on learning strategies in order to help develop the pupils' creative skills and competences for real participation and cooperation.

The present study is part of a more extensive study which was conducted between 2011 and 2012 and aimed at implementing the quality criteria of sustainable development for education at the level of the didactic process (teaching-learning-evaluation) within Romanian pre-university education system. As a school subject, sustainable education encourages both teachers and schoolchildren to use creative thinking, to swap knowledge and opinions,

to cooperate and make decisions. Hence, such a school is dynamic, no longer dominated by traditional hierarchical structures. Thus, the main purpose was to elaborate recommendations to help improve educational practices for sustainable development.

3. Methodology

The research was based on the following hypothesis: if we design institutional educational programs for SD based on real needs and beneficiaries' expectations, then, both the quality of education and the quality of life will enhance.

There has been used a 60 item on-line questionnaire electronically addressed to 126 teachers, working in some schools participating in the world program ECO – SCHOOLS. 88.4 % belong to urban areas and only 11.6% to rural zones. 97.7% of the target group work in state-owned institutions and only 2.3% in private ones. 93% of respondents are female and 7% male.

The questionnaire was made of items related to quality criteria of education for sustainable development within the didactic process in the pre-university education.

The school involved in education for sustainable development can be recognized as students and teachers are encouraged to use critical thinking to explore and ask questions, clearly stating their values and reason on the values of learning, decision-making and participation. Continuous reflection, exchanging information, ideas and also experience between teachers and students are part of a dynamic school. A school of education for sustainable development is not dominated by traditional hierarchical structures, but by dynamic networks and local and global cooperation needs (Breiting, 2005, p.10).

The present questionnaire consists of items strictly regarding the deployment of quality criteria of education for sustainable development in the teaching-learning-assessment process in Romanian education system.

4. Research findings and outcomes

The present study analyzes to what extent teachers use, in their didactic activity, education for sustainable development, by means of learning strategies typical of sustainable development, aiming at helping pupils acquire and develop competences as required by cooperation and participation.

To the first question posed "How often do you use the following learning strategies with the schoolchildren in class?", on a scale ranging from *very rarely*, *rarely*, *occasionally*, *frequently* and *always*, respondents had to choose among the following most frequently used learning strategies: learning by cooperation, learning by experiments, learning by discovery, learning by case study, learning by simulation (role play, cooperation, decision-making etc.), learning by inquiry and learning by projects.

The results have shown that the most frequently used learning strategies are: learning by cooperation (80.56%) and learning by simulation (79.41%). The least frequently used methods are learning by investigation (only 58.82%) as well as learning by case study (66.67%) (see Fig. 1). These results prove that sustainable development requires active, creative, resourceful and cooperative citizens, capable of putting theory to practice.

Sustainable development is a continuous search for improving our daily life as well as the community's, so that we benefit both today and in the future, while minimizing the negative effects exerted by humans on the environment. This requires active and creative citizens who can successfully prevent problems and cooperation issues and who are ready to combine theoretical knowledge with innovations and practical ideas.

As a consequence, the approach on teaching and learning should focus on students, encouraging them to form and develop their own ideas and values. Teachers should consider pupils as being an important and active factor in the learning and acquiring knowledge process. Since the issue of sustainable development is highly controversial and complex, it is important that schoolchildren be able to manage it as well as the disagreements among the participants. Thus, it can be stated that this approach can improve students' performance regarding

their hands-on learning of the school subjects. Moreover, this approach can boost pupils' self-esteem (Breiting, 2005, p.15).

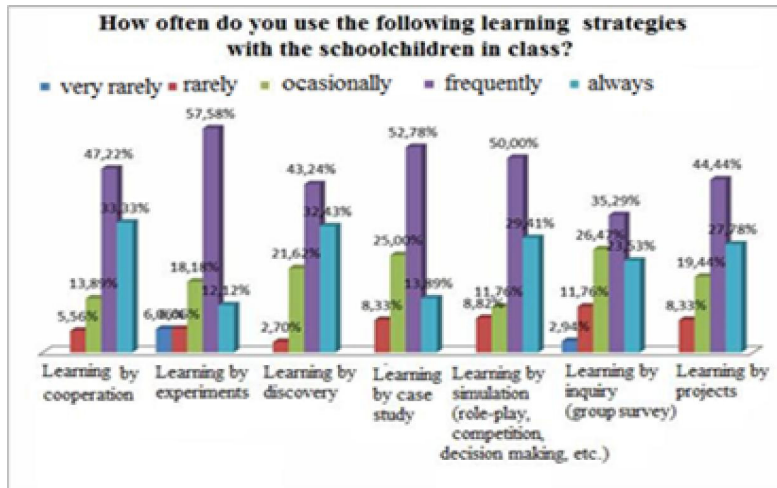


Fig. 1. Learning strategies used in didactic activity

Active listening, assertiveness, assuming of responsibilities as well as solidarity are considered prerequisites to successful relationships based on social cooperation and interaction among pupils and people in general. Hence, it is necessary for teachers to develop these competences during their didactic activity. The results have shown that the competence teachers mostly try to work on and develop is active listening (91.67%) (see Fig. 2b.) since it facilitates empathy and the swapping of opinions.

Furthermore, the results prove that personal assertiveness is discouraged (23.81%), which reveals some inconsistency. Logically speaking, it is practically impossible to foster the art of dialogue and discourage assertiveness at the same time. Thus, the educational programs for sustainable development should help improve real participation and cooperation activities in class.

Likewise, pupils are *very frequently* prone to create scenarios about the future which requires a didactic focus on training the young generation to think about and work on prospective future scenarios (see Fig.2.a).

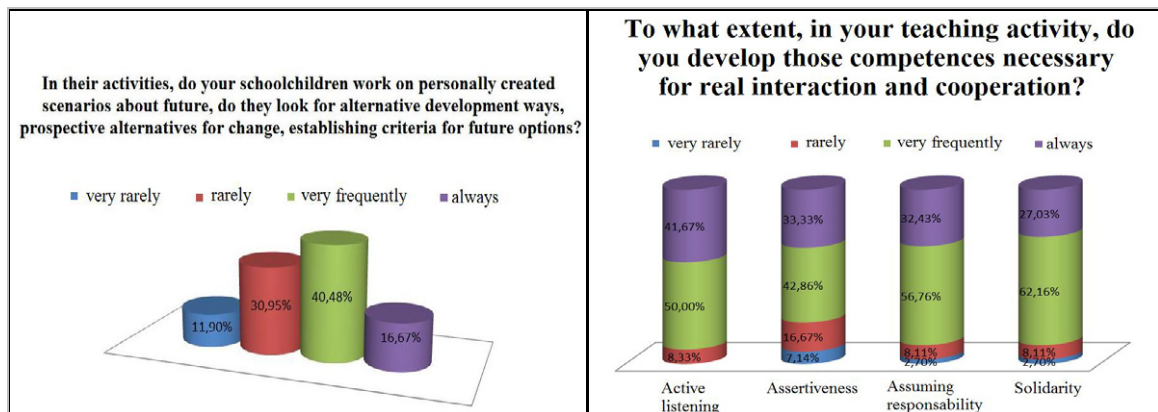


Fig. 2. a) Training the thinking of future scenarios. b) Training interactive competences

5. Research limits of the present study

The limits considered in the present study are: teachers and headmasters' reluctance to cooperate; lack of access to data; lack of quality standards for training programs; a non-representative target group. What is more, as far as the methodology of the research is concerned, respondents are likely to choose the answer in the precise form it is stated and they tend to position themselves as well as the institutions they represent in a favorable light.

6. Conclusions and recommendations

In conclusion, the outcomes of the present research clearly indicate the need to rethink educational policies for sustainable development that aim at developing social, economic and environmental knowledge that will, ultimately, assist pupils in tackling the problems of modern life. By way of conclusion, we can recommend partnerships among institutions to provide teachers with efficient training programs; ensure multicultural contexts to help them understand diversity and practice tolerance towards the Other; work closely with parents, colleagues and the community; reflect and improve upon their didactic activity as far as education for sustainable development is concerned.

As for the teaching staff, to ensure the quality of the didactic activity in the light of sustainable development, they should acquire and develop competences and abilities based on formal, informal and non-formal means and have them officially recognized, such as: to identify each pupil's specific needs and meet them by use of a wide range of teaching strategies; help pupils develop professional and cross competences according to the "European Common Reference Framework for Competences".

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